a.5 --Detailed Description--.

A marked up set of pages showing these amendments is attached (ATTACHMENT III).

IN THE CLAIMS

A marked up set of pages showing these amendments is attached (ATTACHMENT IV).

1. (Amended) Device for use in micro-invasive surgical procedures, comprising a valve unit and a guide catheter that is connected to the valve unit, wherein an instrument catheter that is fitted with an instrument can be inserted through the valve unit into the guide catheter, wherein a hydraulic bypass section (5) is provided, wherein, while at least part of the wall of the guide catheter (4) is close-fitting for the instrument (10), and the lumen cross section corresponds essentially to the largest cross section of the instrument (10), the hydraulic cross section of the bypass section is larger than the lumen cross section, and the length of the bypass section corresponds to at least the length of the largest cross section of the instrument (10).

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2. (Amended) Device in accordance with Claim 1, wherein the bypass section (5) is integrated into the guide catheter (4).

3. (Amended) Device in accordance with Claim 2, wherein the bypass section (5) is positioned in the area of the proximal end (3) of the guide catheter (4).

4. (Amended) Device in accordance with Claim 2, wherein the bypass section (5) is positioned between the proximal end (3) and the distal end (15) of the guide catheter (4).

5. (Amended) Device in accordance with Claim 4, wherein at least the bypass section (5) is designed to have a reinforcement structure (20).

6. (Amended) Device in accordance with Claim 5, wherein the reinforcement structure (20) can be expanded in conjunction with the wall of the guide catheter (4), in the area of the bypass section (5).

7. (Amended) Device in accordance with Claim 4, wherein a radially flexible insertion valve (8) is provided.

8. (Amended) Device in accordance with Claim 4, wherein the bypass section (5) is designed to have a bypass sheath (22) that encloses the guide catheter (4) and is connected to the wall of the guide catheter (4), being sealed at its edges; and to have recesses (23) that are built into the wall of the guide catheter (4), near the edges of the bypass sheath (22).

9. (Amended) Device in accordance with Claim 8, wherein the recesses (23) are essentially rounded in cross section, or are rectangular in cross section, with the sides being essentially equal in length.

10. (Amended) Device in accordance with Claim 4, wherein at least the bypass section (5) is designed to have a number of groves (24) that extend through the wall of the guide catheter (4), wherein the grooves (24) are sealed by an outer sheath (25).

11. (Amended) Device in accordance with Claim 10, wherein the grooves (24) are oriented lengthwise along the guide catheter (4).

12. (Amended) Device in accordance with Claim 10, wherein the grooves (24) are designed to be coiled in a spiral.

13. (Amended) Device in accordance with Claim 4, wherein the guide catheter (4) in the area of the bypass section (5) is equipped with a wall recess (25) that extends essentially over the entire length of the bypass section (5), and wherein a collapsible bypass sheath is attached to the wall of the guide catheter (4) and serves to seal the recess in the wall (25).

14. (Amended) Device in accordance with Claim 13, wherein in the area of the wall recess (25) a sheath frame unit (26) is provided, which extends lengthwise along the guide catheter (4), and can be placed in an inward, engaged position or in an outward, disengaged position.

15. (Amended) Device in accordance with Claim 14, wherein the sheath frame unit (26) is comprised of at least two frame braces (27), the outer surface area of which is small relative to the radial dimensions of the recess in the wall (25).

16. (Amended) Device in accordance with Claim 14, wherein the sheath frame unit (25) is comprised of a frame membrane (28), the outer surface area of which is large relative to the radial dimensions of the recess in the wall (25).

17. (Amended) Device in accordance with Claim 4, wherein edge markers (21) are provided along the edges of the bypass section (5) for use in imaging procedures.

18. (Amended) Device in accordance with Claim 4, wherein visible or palpable markers are provided on the instrument catheter (11), which can be seen or felt during positioning of the instrument (10) in the bypass section (5).

19. (Amended) Device in accordance with Claim 1, wherein the bypass section (5) is designed to form a single piece with the valve unit (1).

20. (Amended) Device in accordance with Claim 1, wherein the bypass section (5) is designed as an intermediate segment (18) that can be inserted between the guide catheter (4) and the valve unit (1).

21. (Amended) Device in accordance with Claim 20, wherein the intermediate segment (18) can be connected to the guide catheter (4) such that it can rotate.

22. (Amended) Device in accordance with Claim 3, wherein the bypass section (5) is either entirely transparent, or transparent in at least one partial section.

23. (Amended) Device in accordance with Claim 19, wherein the length of the bypass section (5) and the length of the valve unit (1), into which the instrument catheter (11) is inserted, together correspond to at least the length of a section between the distal end (16) of the instrument (10) that slides along the guide wire, and a point of exit (14) for the guide wire (12) out of the guide shaft (13).

24. (Amended) Guide catheter for a device for use in micro-invasive surgical procedures, into which an instrument catheter that is fitted with an instrument can be inserted through a valve unit in the device, wherein a hydraulic bypass section (5) is provided, wherein, while at least part of the wall of the guide catheter (4) is close-fitting for

the instrument (1), and the lumen cross section corresponds essentially to the largest cross section of the instrument (10), the hydraulic cross section of the bypass section is larger than the lumen cross section, and the length of the bypass section corresponds to at least the length of the largest cross section of the instrument (10).

25. (Amended) Guide catheter in accordance with Claim 24, wherein the bypass section (5) is positioned in the area of the proximal end (3) of the guide catheter (4).

26. (Amended) Guide catheter in accordance with Claim 24, wherein the bypass section (5) is positioned between the proximal end (3) and the distal end (115) of the guide catheter (4).

27. (Amended) Guide catheter in accordance with Claim 26, wherein at least the bypass section (5) is designed to have a reinforcement structure (20).

28. (Amended) Guide catheter in accordance with Claim 27, wherein the reinforcement structure (20) can be expanded in conjunction with the wall of the guide catheter (4) in the area of the bypass section (5).

29. (Amended) Guide catheter in accordance with Claim 26,wherein the bypass section (5) is designed to have a bypass sheath (22) that encloses the guide catheter (4) and is connected to the wall of the guide catheter (4), with its edges being sealed, and to have recesses (23) built into the wall of the guide catheter (4) near the edges of the bypass sheath (22).

30. (Amended) Guide catheter in accordance with Claim 26, wherein the recesses (23) are essentially round in cross section or rectangular in cross section, with the sides being essentially equal in length.

31. (Amended) Guide catheter in accordance with Claim 29, wherein at least the bypass section (5) is designed to have a number of grooves (24) that extend through the wall of the guide catheter (4), wherein the grooves (24) are sealed by an outer sheath (25).

32. (Amended) Guide catheter in accordance with Claim 31, wherein the grooves (24) are oriented lengthwise along the guide catheter (4).

33. (Amended) Guide catheter in accordance with Claim 31, wherein the grooves (24) are designed to be coiled in a spiral.

34. (Amended) Guide catheter in accordance with Claim 26, wherein the guide catheter (4) is designed to have a wall recess (25) in the area of the bypass section (5), that extends essentially over the entire length of the bypass section (5), and wherein a collapsible bypass sheath (22) is provided, which is attached to the wall recess (25) such that it forms a seal.

35. (Amended) Guide catheter in accordance with Claim 34, wherein a sheath frame unit (26) is provided in the area of the wall recess (25), extending lengthwise along the guide catheter, and can be placed in an inward, engaged position or in an outward, disengaged position.

36. (Amended) Guide catheter in accordance with Claim 35, wherein the sheath frame unit (26) is comprised of at least two frame braces (27), the outer surface of which is small relative to the radial dimensions of the recess in the wall (25).

37. (Amended) Guide catheter in accordance with Claim 35, wherein the sheath frame unit (25) is comprised of a frame membrane (28), the outer surface of which is large relative to the radial dimensions of the recess in the wall (25).

38. (Amended) Guide catheter in accordance with Claim 26, wherein edge markers (21) are provided along the edges of the bypass section (5) for use in imaging procedures.

39. (Amended) Valve unit for a device for use in micro-invasive surgical procedures that can be connected to a guide catheter, into which an instrument catheter, which is fitted with an instrument, can be inserted through the valve unit, wherein a hydraulic bypass section (5) is provided, wherein, while at least part of the wall of the guide catheter (4) is close-fitting for the instrument (1), and the lumen cross section corresponds basically to the largest cross section of the instrument (10), the hydraulic cross section of the bypass section is larger than the lumen cross section, and the length of the bypass section corresponds to at least the length of the largest cross section of the instrument (10).

40. (Amended) Valve unit in accordance with Claim 39, wherein the bypass section (5) is designed to form a single unit with the valve unit (1).

41. (Amended) Valve unit in accordance with Claim 39, wherein the bypass section (5) is designed as an intermediate segment (18) that is connected to the valve unit (1) such that it can be removed.

42. (Amended) Valve unit in accordance with Claim 41, wherein the intermediate segment (18) can be connected to a guide catheter (4) such that it can rotate.

43. (Amended) Method for use in micro-invasive surgical procedures, wherein an instrument catheter (11) that is fitted with an instrument (10) can be inserted through a close-fitting guide catheter (4) in the body of a patient, until it reaches an area in which diagnostic and/or therapeutic procedures are to be performed, wherein during the micro-invasive surgical procedure the instrument (10) is positioned inside a bypass section (5), whose hydraulic cross section is larger than the lumen cross section of the guide catheter (4), and whose length corresponds to at least the length of the instrument (10), and wherein when the instrument (10) has been positioned inside the bypass section (5), a fluid is introduced into the guide catheter (4).

44. (Amended) Method in accordance with Claim 43, wherein the hydraulic cross section is expanded via an instrument, designed as a dilatable balloon (10).